Net Prowler™

Identify, Monitor, and Correct LAN Issues

User Manual

- Pings IPV4 and IPV6 devices to verify DHCP and network devices
- Discovers CDP, LLDP, and VLAN
- Network Mapping
- Detects presence and mode of PoE per IEEE 802.3af/at and identifies PoE or PoE+
- Detects and reports current link speed and link capabilities for active Ethernet drops, up to 1 Gbps
- Displays length measurement for each pair in feet or meters using TDR technology
- Tests Ethernet cables for opens, shorts, miswires, split pairs, and reversals
- Supports up to 8 testing & ID remotes for network & telephone cables
- Supports up to 20 network & coax ID-only mapping remotes
- Full color graphical wire-mapping
- Save cable and network tests for reviewing, documenting, and printing
- Multilingual (English, French, Spanish, Italian, German)

T3 Innovation

www.t3innovation.com

Net Prowler™

Identify, Monitor, and Correct LAN Issues

User Manual

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Net Prowler Features

The Net Prowler™ Cabling and Advanced Network Tester has the capability to identify, monitor, and troubleshoot LAN issues associated with physical layer and link conditions in the network.

IPV4 and IPV6 support

- Net Prowler's active network features support both IPV4 and IPV6

Ping Test

- Ping specified IPV4 and IPV6 addresses or URL targets

Network Mapping

- Map Network devices by obtaining network IP4 addresses, device names, and MAC addresses.

CDP and LLDP Detection

- Detects and displays LLDP and CDP switch information.

PoE Detection

- Detect presence of PoE AF or AT of PoE per IEEE 802.3af/at with load test for voltage drop

TDR Technology

- Measure cable length and distance to faults

One Ended Cable Test

- Measures and identifies Opens, Shorts, and Split Pairs without a remote

High-resolution color display

- Easy viewing in any environment

Color wire map per TIA568A/B codes

- Makes data visualization, detection, and saving easy

USB, RJ45, and coaxial connectors

- Tests network and coaxial cables
- Easy-to-export results via USB

Tone Generation

- Trace cable runs and locates faults by sound

Network/Telephone Testing Remotes

- Verifies connectivity at the opposite end of a cable and provides identification

ID Only Remotes

- Identify up to 20 RJ45 or Coax remotes

Active Network Tests

- Detects and reports current link speed and link capabilities for active Ethernet drops, up to 1 Gbps

Save and View Test Results

- Save Cable tests, Network PoE tests and Network Mapping tests

Net Prowler PC Application

- Provides the ability to upload or download test results for saving, viewing, or printing
- Makes it easy to update Net Prowler firmware

TCP/UDP Throughput Test

- Transfers data in both directions over the network using TCP or UDP. Reports throughput and packet count. Allows control of total data size and delay between packets. Displays visual bidirectional socket control.

Safety Information

To ensure safe operation of the Net Prowler, follow instructions carefully and observe warning and caution messages in this manual. Failure to observe warnings can result in severe injury or death and can damage the equipment.

Notifications

The Net Prowler is designed for use on cabling systems with or without voltage.

Operating the Net Prowler when a voltage source exceeds 60 Volts peak AC or DC may pose a safety hazard for the user.

Do not place equipment and its accessories in the trash. Items must be properly disposed of in accordance with local regulations.

Net Prowler Kits

Your Net Prowler is part of a kit. T3 offers three kits to meet your cable testing needs:

NP700

- Net Prowler Main Unit
- Coax and Network Remote Set #1-5, F-Conn coupler (Qty. 2) includes foam holder
- Network/Tel Testing and ID Remote #1
- RJ12 Cable Qty. 2
- Micro USB Cable
- Hanging T3 Pouch

NP750

- Net Prowler Main Unit
- Coax and Network Remote Set: #1-5, F-Conn coupler, includes foam holder and #1-8 Network/Tel Testing and ID Remotes
- RJ12 Cable Qty. 2
- Micro USB Cable
- Large T3 Pouch

NP800

- Net Prowler Main Unit
- #1-8 Network/Tel Testing and ID Remotes
- #1-20 Coax Remotes
- #1-20 Network Remotes
- RJ12 Cable Qty. 2
- Micro USB Cable
- Large T3 Pouch

Net Prowler Accessories

AD004 F-Connector Coupler: F81

CA007 Cable Assembly: Micro USB to USB CA012

CA012 Cable Assembly: RJ12, 1-1 pinned, 8 inch

CP100 Hanging T3 Pouch

CP200 Large T3 Pouch

RK120 Coax ID Remote Set: #1-20 coax ID includes foam holder

RK220 Network ID Only Remote Set: #1-20 includes foam holder

RK305 Coax and Network Remote Set: #1-5, F-Conn Coupler includes foam holder

TP200 TrakAll: tone generator and probe

TT001 Network & Telephone Testing/ID Remote #1

TT002 Network & Telephone Testing/ID Remote #2

TT003 Network & Telephone Testing/ID Remote #3

TT004 Network & Telephone Testing/ID Remote #4

TT005 Network & Telephone Testing/ID Remote #5

TT006 Network & Telephone Testing/ID Remote #6

TT007 Network & Telephone Testing/ID Remote #7

TT008 Network & Telephone Testing/ID Remote #8

TT108 Network & Telephone Testing/ID Remotes #1-8

AK010 Hanging Strap with Carabineer

AK020 Prowler Kickstand

AK030 Network Accessory Kit

Net Prowler Description

Remotes

RK305
Coax and Network Remote Set: #1-5,
F-Conn Coupler with foam holder

RK220
Network ID Only Remote Set: #1-20
includes foam holder

RK120
Coax Remote Set:
#1-20 coax ID; includes foam holder

TT108
Network and Telephone Testing/ID
Remote Set: #1-8

LCD Screen

The Net Prowler features a full-color graphic LCD screen. Press any of the four soft keys (blue) below the on-screen icon to select that function. Alternately, you can use the side or up/down arrows to scroll to your selected on screen function and press enter (the center arrow).

Types of Faults

Miswire: Cable's wire connection does not follow TIA568A/B Ethernet cabling standards.

Open: Wire connection is not continuous throughout cable length.

Short: A pair has a low resistance fault. This occurs when the wires are making contact with each other due to damage or improper termination.

Split: A cable can be wired with correct continuity but not with correct circuit pairing. This most often happens when the cable is terminated consistently at both ends but in the wrong order.

Length: Displays the pair lengths found. Length discrepancies may be determined by these results.

Network Connectivity: Displays network connectivity which allows the user to determine if it is different than expected.

PoE: Displays results in red if voltages are lower than expected.

OPERATIONS

Follow instructions carefully and pay attention to warning and caution symbols. Failure to observe warnings can result in severe injury or death and damage to the Net Prowler tester.

On/Off

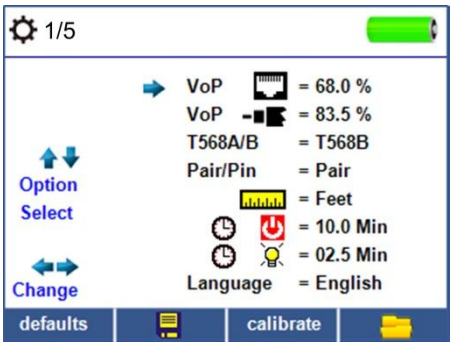
Turn unit On/Off—press the red power button to turn the Net Prowler on and off.

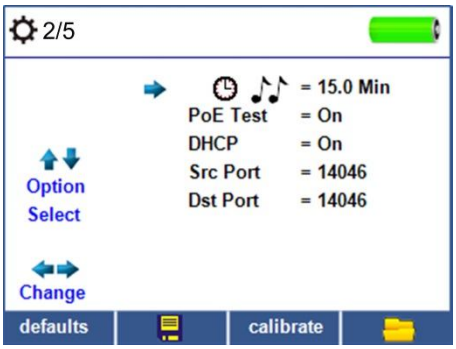
Automatic Power Down

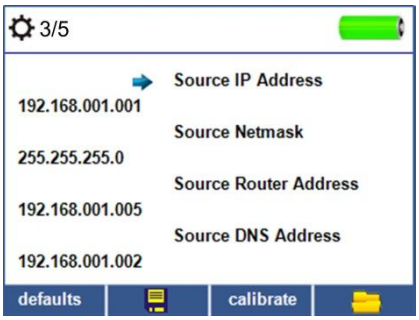
The Net Prowler automatically turns off to conserve battery power if no input or activity is performed on the device. See “setup” to adjust the length of time before automatic power down.

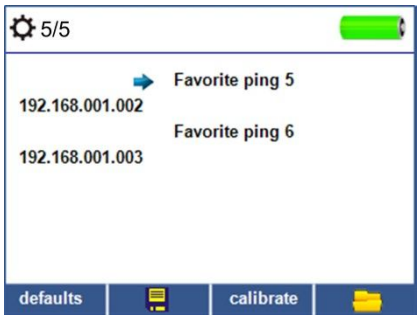
SETUP

From the main screen, press the soft key on the far right below the “setup” symbol .





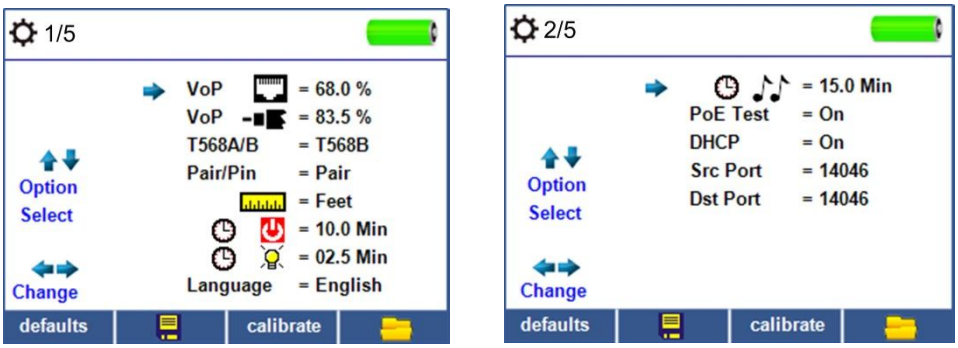




- Use the up and down buttons to navigate through the 5 settings pages.
- Use the left or right arrow buttons to select setting.
- Use the up and down arrow buttons to change the highlighted setting.
- Press the enter button to accept your changes.

- When editing an IP address, press the “Done” soft key Done to return to the setup screen
- Press the Save soft key to save your changes.

Changing a Setting



- RJ45 VoP VoP : Set the VoP to be used to measure RJ45 and Telephone cable.
- Coaxial VoP VoP : Set the VoP to be used to measure coaxial cable.
- TIA568A/TIA568B: Set the RJ45 wiring configuration to TIA568A or TIA568B wiring standard.
- Pair/Pin: Set the RJ45 wiremap to measure by pair or pin.
- Meters/Feet : Set the length measurement to be displayed in Meters or Feet.
- Power Off Timeout : Set the desired automatic timeout from 00.5-99.8 minutes. To disable the timeout, set to 99.9.
- Language: Set the desired language from English (default) to Spanish, French, Italian, or German.
- LCD Dimmer Timeout : Set the desired automatic timeout from 00.5-99.8 minutes. To disable the timeout, set to 99.9.
- Tone Generator Timeout Set the desired automatic timeout 00.5-99.8 minutes. To disable the timeout, set to 99.9.
- PoE Test: Turn the PoE test On or Off. Turning the PoE off will allow the Net Prowler to detect a network without performing a PoE test.
- DHCP Test: Turn off DHCP to test a fixed IP environment.
- Source Port: Set the desired Ethernet port to be used when connecting to the PC application. This must match the port number entered in the application. The default port number is the same as the default application port number.

- Destination Port: Set the desired destination port to be used with the Net Prowler application. The default port number is the same as the Net Prowler application.
- IP Configuration: Use the down arrow button to change the network IP. The network IP settings are used when DHCP is disabled. If the DNS address is set to an IPV6, it will be used as the IPV6 DNS address.
- Favorite Ping: Use the down arrow button to select one of six Favorite Ping memory slots. Use the right arrow button to assign or change the favorite ping address. To ping a URL press the Keypad soft key Keypad then the URL soft key URL.
- Test List: To access the list of test results, press the folder soft key . You can edit, rename, and delete results in the test list.
- Calibrate: To calibrate the Net Prowler's zero length measurement, unplug any connected cables or adaptors, and press the Calibrate soft key calibrate.
- Press the Save soft key to save your options.
- To restore setup menu defaults, press the Defaults soft key defaults.

Note: If only temporary change is desired, do not press the save button. If the save button is not pressed, the previous settings will be restored once the unit is powered off.

CABLE TESTING

The Net Prowler tests coax, network, and telephone cables to detect possible faults, measure cable lengths, show wire pairing and examine a cable's physical/electrical properties.

Important Notes:

- *RJ jacks for data and telephone share internal connections on the Net Prowler. Connect just one RJ cable at a time.*
- *You cannot connect an RJ and coaxial cable at the same time.*
- *If testing RJ cables, remove any coax cable adapters*

Safety Notes

The Net Prowler is designed for use on cables with voltage below 60V. Do not plug the device into a source with voltage above 60V. Connecting the device to live AC power can damage the unit and pose a safety hazard.

Poorly terminated RJ plugs can damage the jacks on the Net Prowler. Inspect all RJ plugs before inserting them into the Net Prowler. Make sure you insert the plug into the appropriate jack of

the remote or device. Do not plug a telephone cable directly into the Net Prowler; Use the included RJ12 no fault telephone patch cable.

Cable contacts should be recessed into the plastic housing of the receiving jack. Don't plug a six-position telephone plug into an eight-position data jack on a remote or remote device.

Length Testing

Net Prowler measures cable length and length to faults using Time Domain Reflectometry (TDR). Velocity of Propagation (VOP) is the TDR measurement of the speed of the reflected waveforms compared to the speed of light. VoP values can vary among cable types, lots, and manufacturers. In most cases, these differences are minor and may be disregarded.

Cable Testing with Remotes

#1-8 Network/Tel Net Prowler remotes (P/N TT108) are used to verify connectivity at the opposite end of a cable and provide an ID. To connect to a telephone cable, use the included RJ12 no fault telephone patch cables (P/N CA012) to connect to a RJ11 wall plate. The #1-20 Coax (P/N RK120) and #1-20 Network (P/N RK220) remotes are used to provide an ID.

How to Perform a Cable Test

- Power on the Net Prowler.
- Connect a network, coax, or telephone cable to the appropriate connector on the top of the Net Prowler.
- If a remote is being used, connect the remote to the opposite end of the cable.

Warning! Do not plug an RJ11 cable directly into the Net Prowler. A standard RJ11 cable will damage the Net Prowler's RJ45 jack. Use the RJ adapter patch cable (CA012) that is included with the Net Prowler.)

- Press the enter button or cable test soft key to display the cable test menu. The Net Prowler will automatically perform a test upon entering the cable test menu.
- To test coax cable, press the coax soft key .
- To test telephone cable, press the coax soft key then the telephone soft key .
- If a remote is NOT being used (one ended test), the Net Prowler will test the length of each pair, opens, shorts, or split pairs. Performing a one-ended test will not verify connectivity on the opposite end of the cable.

- To calibrate the VOP, connect a known length of cable to the Net Prowler and press the up/down/left/right buttons to increase or decrease the VOP. Press the left and right buttons to select and change the VOP one digit at a time.
- While adjusting the VOP, press the test button until the desired length of the cable is displayed.
- To save the calibrated VOP, enter the settings menu and press the Save soft key (note: your adjusted VoP will be displayed next to the RJ45 or Coax icon.
- Press the green test button or the Loop Mode soft key to perform additional tests.
- To save a cable test, press the save soft key .
- Use the arrow buttons and the enter button to name the cable test file. Press the Delete soft key or the delete all soft key to clear an entry .
- Press the Save soft key again to save the file name. The Net Prowler will display "Test Saved" at the top of the screen. Press the back button to return to the previous screen.

  *The Net Prowler can save up to 256 cable labels. *You can also view, edit, or delete existing cable labels by pressing the Files soft key.*
- Press the Save soft key again to save the test file.

NETWORK/POWER OVER ETHERNET (PoE) TESTING

Power over Ethernet or PoE describes a specification which allows passing of electrical power along with data on Ethernet cabling.

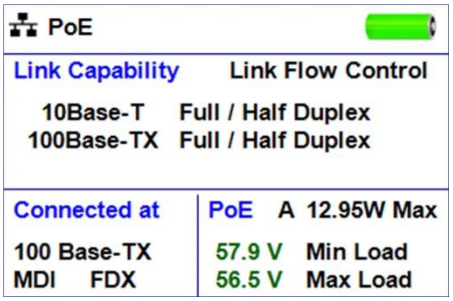
There are two standardized specifications the IEEE 802.3af, and IEEE 802.3at also known as PoE+. The first provides a maximum 12.95 Watts, and the second provides a maximum of 25.5 Watts.

PoE also has two modes A and B. Mode A uses pins 1 and 2 for the positive voltage and pins 3 and 6 for the negative voltage. Mode B uses pins 4 and 5 for the positive voltage and pins 7 and 8 for the negative voltage.

The Net Prowler tests to see if either PoE or PoE+ is present. If it is detected, it then activates and tests the voltage under minimum and maximum current load, and displays the result. The Net Prowler will also display which PoE mode is found.

*Note: PoE voltages displayed in red indicate a possible issue with wire pair resistance. This may be an indication that the cable wire is low quality aluminum clad and not solid copper.

The Net Prowler also communicates and displays the Link Status up to 100Mb and Link Capability status up to 1000Mb.



The Net Prowler will also identify the "Connected at" status and display the physical connection condition:

- MDI: Straight cable connection
- MDIX: Crossover cable connection
- FDX: Full Duplex
- HDX: Half Duplex
- REV: Data polarity is reversed
- Link Flow Control: Flow Control is enabled

How to Perform a Network/PoE Test

- Connect the Net Prowler to a switch or active network jack.
- Use the left or right arrow buttons to select the Network/PoE icon and press the enter button or press the Network/POE soft key .
- The Net Prowler will automatically detect and display link capability, connection speed, PoE mode, and PoE Min/Max voltages.

  * Note: if Link Flow Control is displayed but the Link Status is not, turn off the PoE test.

- To perform a Network Test only, press the PoE off soft key .

- To save the Network/PoE data, press the Save soft key .
- Use the arrow buttons and the enter button to name the PoE file.
- Press the Save soft key again to save the file name. The Net Prowler will display "Test Saved" at the top of the screen. Press the back button to return to the previous screen.

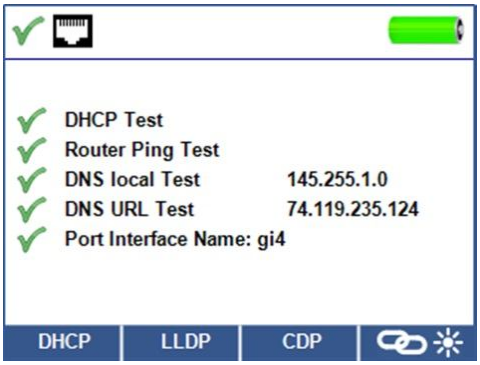
PORT TESTING

In Port Discovery mode, the Net Prowler will perform a Port Test, display DHCP information, discover LLDP and CDP switch information.

- From the Network/PoE test screen, press the Port Test soft Key .

Port Test

- The Net Prowler will automatically perform a Port Test upon entering the Port Test mode.
- The Net Prowler will provide a green check next to the Port Test results:

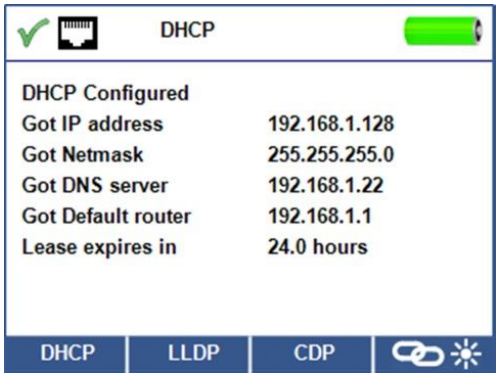


- The Net Prowler will also ping a URL to verify WAN throughput.
- If the port interface number is available, it will be displayed at the bottom of the screen.

** Depending on the switch, the Port interface name (Port Number) may take up to 1 minute to be displayed.*

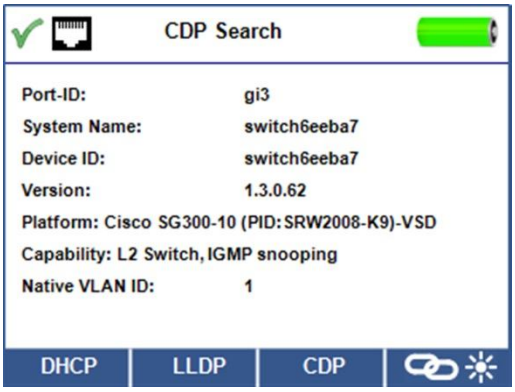
DHCP

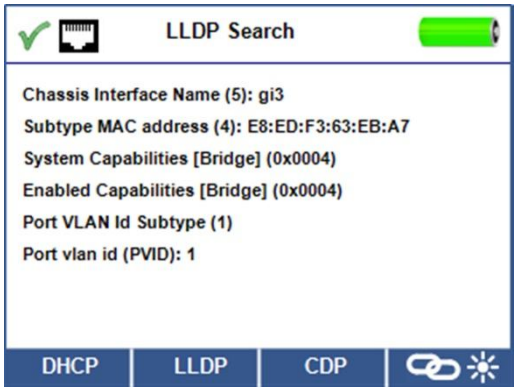
Press the DHCP soft key to view DHCP IP addresses and lease time.



LLDP/CDP

- If the switch you are connected to supports LLDP or CDP, press the LLDP or CDP soft key and the information provided by the switch will be displayed.
- VLAN results will be displayed if it is supported by the switch. VLAN Subtype and ID will be displayed in the LLDP Search Screen





Link Light

The Link Light test is used to help identify a hub or switch port.

- Connect the Net Prowler to an active Network cable or port.
- From the home screen, press the Network/PoE soft key PoE then press the Link Light soft key .
- The Link Light will automatically begin upon entering the Link Blink menu.
- The Link LED above the LCD screen will flash at the same cadence as the port light.
- Use the up and down arrows to adjust the transmit frequency to adjust the link light cadence.

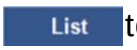
Ping IPV4/IPV6

The default Ping is set to IPV4. To change to IPV6, press the IPV6 soft key.

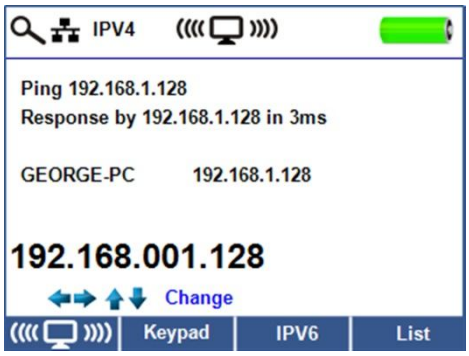
- Connect the Net Prowler™ to a switch, router, or active network jack.
- From the home screen, press the right arrow button to select the Network Discovery icon and press the enter button or press the Network Discovery soft key .
- The Net Prowler will display DHCP test information upon entering the IPV4 Device Discovery screen.
- Press the IPV6 soft key to ping IPV6 .
- Press the ping soft key .
- Use the left and right arrows to highlight a digit. To change a digit, use the up and down arrows or press the keypad soft key to use an alphanumeric keypad. To unselect the keypad, press the keypad soft key again.
- Press the Test button to ping the IP address.
- The Net Prowler will display the Response IP, device name (if available), and response time in milliseconds.

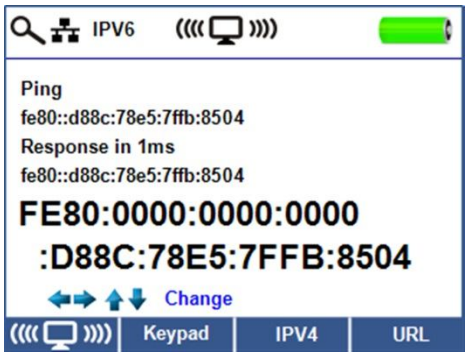
List

The Net Prowler will automatically add an IP address to the List after it has been pinged. If a Network Mapping test has been performed, the discovered IP addresses will also be added to the list (see Network Mapping pg. 16).

- From the Ping screen press the List soft key  to view discovered IP addresses and manually pinged IP addresses.
- To ping an IP address in the list, use the up and down buttons to navigate to the desired IP address and press the test button.
- To ping IP addresses stored as Favorites, press the Favorites soft key .
- Use the up and down arrow buttons to scroll to the desired IP address.

- Press the Test button to select an IP address then press the test button again to ping the selected IP.





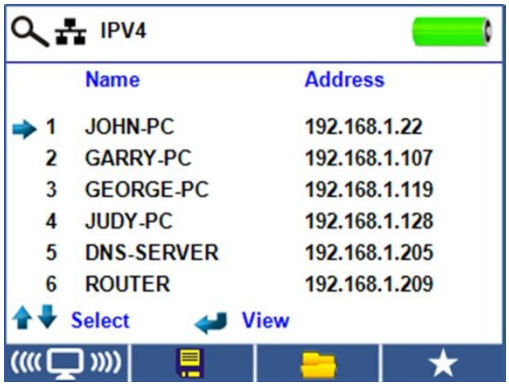
Favorites

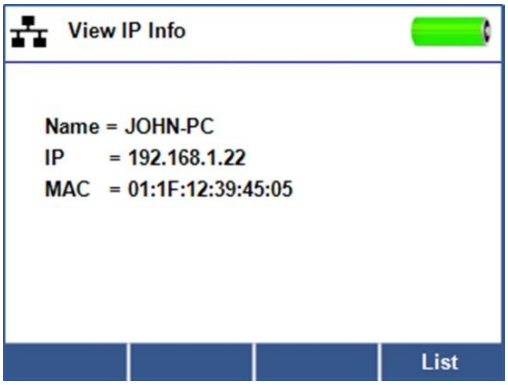
- From the List screen List, press the Favorite's soft key ★ to view the favorites list.
- Use the up and down arrows to scroll to the desired IP or URL.
- Press the test button to select the IP/URL to be pinged. The Net Prowler will automatically obtain the URL IP address from the DNS server.
- Press the Test button again to ping the selected IP (the Net Prowler will automatically obtain the URL IP address from the DNS server, press the test button to ping the URL IP).

Network Mapping

The Net Prowler pings network devices using NDP to identify broadcasted devices by obtaining their IP addresses.

- From the Network Mapping home screen , press the Network Mapping soft key .
- The Net Prowler will scan the network and display IP addresses. The list will include device labels to the left of the IP addresses.
- To save the Network Mapping results, press the Save soft key .
- Use the arrow buttons and the enter button to name the test file. Press the Delete soft key X or the Delete All soft key to clear an entry.
- Press the Save soft key again to save the file name. The Net Prowler will display "Test Saved" at the top of the screen. Press the back button to return to the previous screen.
- Additional information can be viewed by selecting an IP address then press the enter button:



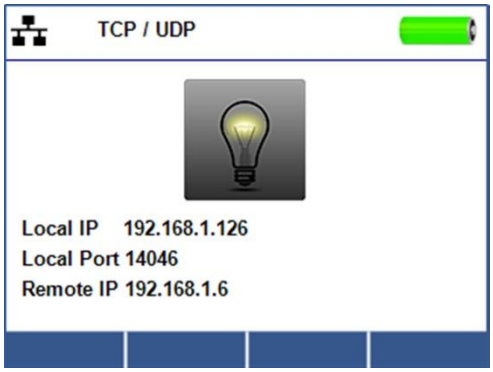


*The Net Prowler can save up to 20 Network Mapping List tests containing up to 256 IP addresses each.

- Press the List soft key List to return to the Network Mapping list.

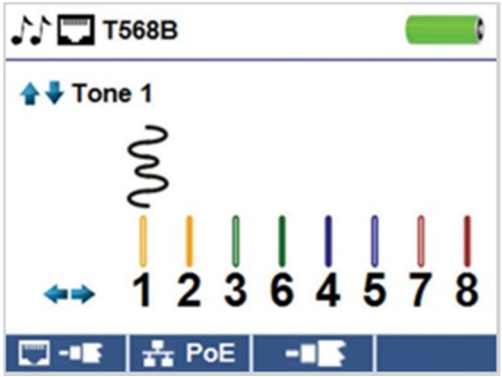
TCP/UDP Throughput Test

The TCP/UDP Throughput test verifies connectivity between the Net Prowler and a PC on the same LAN. The light bulb graphic can be adjusted using the up and down arrow buttons and the light bulb graphic on the Net Prowler application will adjust simultaneously. See Throughput instructions under Net Prowler Application on Page 22. To exit the TCP/UDP test screen, press the back button.



Tone Generator

Tone generation is used to trace cable runs and locate faults by sound. Selection of this mode emits a cadence from the Net Prowler through the connected cable. The tone is detected by a tone tracer probe (sold separately). Refer to the Accessories section.



- From the home screen, press the Enter button or the Cable Test soft key
- Press the tone generator soft key .
- The Net Prowler will automatically activate the tone generator upon entering the tone generator menu.
- Connect your cable to either the RJ45 jack or coax connector located on the top of the Net Prowler.
- To switch between network and coax cables, press the coax cable or RJ45 soft key.
- Press the up or down arrow buttons to select tone cadences 1 thru 4.
- Press the left or right arrow buttons to select which pin or pair to place the tone.
- Use a tone probe alongside the cable or at the end of the cable to hear an audible tone.

Net Prowler Application

The Net Prowler Application gives you the ability to view, save and print cable and network test results to your computer. This application can also update your Net Prowler's firmware. Additional features include the ability to perform network tests such as Link Validation and Throughput Testing.

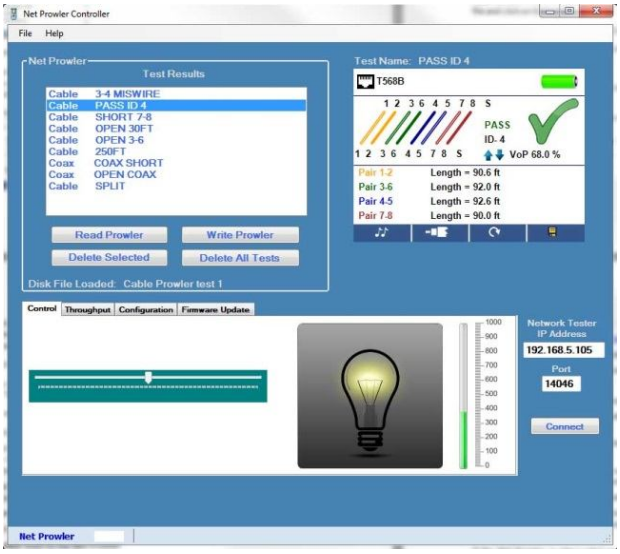
*Note: The Net Prowler is Windows XP, Vista, 7, and 8 compatible. MAC and Linux are currently not supported.

To install the Net Prowler Application

- Go to www.t3innovation.com/downloads to download the Net Prowler software application.
- Save the Net-Prowler-Application.zip file to your computer's desktop. Right click on the .zip file and click on Extract All.
- Double click on the Net Prowler x.xx folder.
- Double-click on "setup.exe" to begin the installation.

Test Results

- Open the Net Prowler application by double clicking on the application shortcut on your desktop.
- Connect the Net Prowler to your computer with the included micro USB cable.
- Power on the Net Prowler . The software will display “Net Prowler connected” at the bottom left of the application screen.
- Click on Read Prowler to read the test results. The cable names will be displayed in the Test Results window. The first cable name will automatically be selected and displayed at the top right.
- Click on the cable IDs in the Test Results list to view test results for that ID.



- You can delete a single test by selecting a cable label and click on Delete or delete the entire test list by clicking on Delete All Tests.

Saving results to your computer

- Click on File.
- Click on Save File. A Save As dialogue will appear; navigate to where you want to save the test results, name the file, and click Save. The computer software application will remember the last place you saved a file.
- After tests have been saved, they will be automatically reloaded the next time the application is opened.

Read previously saved tests

- Click on File, Open, and select the desired test result file.

Write cable tests to the Net Prowler

- Connect the Net Prowler to your computer using the included USB cable.
- Open the Net Prowler software application. Click on File, Open, and select the desired test.
- Click on Write Prowler and the contents of the currently displayed tests will be written to the Net Prowler.

Printing test results

- Click on the desired test or press and hold the Ctrl key and click on multiple tests to print more than one.
- Click on File then Print.

Create PDF and CSV reports

- Click on the desired test or press and hold the Ctrl key and click on multiple tests.
- Select Create Report Pdf, Create Report CSV, or Create List PDF under the File menu.
- When a Dialog box comes up, select the file name and location for the pdf file to be saved.
- Select Create Report Pdf or Create Report CSV under the File menu.
- When the Dialog box appears, select the file name and location for the Pdf or CSV file to be saved.

*Note: Columns and rows may need to be adjusted to view all of the data when CSV files are opened with Excel.

Update Firmware

Downloading the Net Prowler Firmware:

- Go to www.t3innovation.com/downloads.
- Click on the Net Prowler Firmware update link to download the new firmware.
- Save the Net Prowler.cyacd file to your computer.

Updating the Net Prowler:

- Connect the Net Prowler to your computer using the included USB cable.
- Open the Net Prowler application on your PC.
- Power on the Net Prowler. The software will display Net Prowler Connected at the bottom left of the screen.
- Click on the Firmware Update tab.

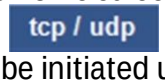
- Click the Load File icon and select the desired Net Prowler.cyacd firmware file. Click the Begin Download icon.
- The Net Prowler screen will go dark and it will begin the firmware installation (the screen will remain dark during the installation).
- The Net Prowler Application will display a progress bar to indicate the download progress.
- Once complete, the Net Prowler application will display Success along with the installation date and time in the Status Log window. The Net Prowler will power itself back on after the firmware installation.
- If the Net Prowler is interrupted or an error occurs during installation the Net Prowler screen will remain dark. To recover the Net Prowler firmware, close the Net Prowler application, disconnect the Net Prowler from the USB cable and then remove the batteries. Reinsert the batteries and follow the update instructions.

Important Notes: The Net Prowler screen will remain dark until it has been reprogrammed.

Configuration

- Enter the Net Prowler IP address in the box next to Tester IP Address. To obtain the Net Prowler IP address, perform a DHCP test with the Net Prowler (See pg. 14) Use the IP address next to Tester IP address. The Port can also be specified in the Net Prowler setup menu (see pg. 9 under changing a setting) and in the application under “Port”. The default port number is 14046.
- If DHCP is not available, click on the Configuration tab, uncheck the DCHP Enable/Disable check box.
- Enter the Tester IP address, Subnet Mask, Router Address, DNS IP address, Destination IP addresses and Source Port.

TCP/UDP Throughput Test

- Open the Net Prowler application.
- Click on the Control tab.
- Power on your Net Prowler and connect it in to an active port/cable.
- From the home screen; Press the Device Discovery soft key , then press the TCP/UDP soft key. 

Click Start on the application to begin the Throughput test. The test can also be initiated using the Net Prowler by pressing the Test button .
- Adjust the Net Prowler Brightness scale left or right (0-100%) or use the up and down arrow buttons on the Net Prowler, this will indicate a successful connection.

Throughput: Measure the throughput of a specified amount of data:

- Adjust the Net Prowler Brightness scale left or right (0-100%) or use the up and down arrow buttons on the Net Prowler, this will indicate a successful connection.
- Power on your Net Prowler and connect it in to an active port/cable. Press the Network/Poe soft key, power on your Net Prowler and connect it in to an active port/cable. Press the Network/Poe soft key.
- Click on the Throughput tab on the application.
- Select TCP or UDP.
- Enter a delay (if desired). The delay value is in milliseconds.
- Enter a desired amount of data to send. The data value is in kilobits.

** Note: Increasing the amount of data will increase the time it will take for the test to be performed. This may impact the battery life of the Net Prowler.*

- Click Start to begin the data transfer.

Glossary

Open

Wires/Cable Pairs do not have continuity throughout the cable or the Net Prowler remote is not detected.

Short

Wires/Cable Pairs are making an electrical connection with each other or foreign object.

Split

A cable that has been correctly wired pin to pin at both ends, but not in correct color code. When this happens, signals from one circuit pair becomes cross coupled with another that creates signal corruption and slow data speed symptoms.

MDI

Straight Cable connection: Pin 1 and 2 used for receiving data, Pins 3 and 6 used for transmitting data.

MDI-X

Crossover Cable connection: Pin 3 and 6 used for receiving data, Pins 1 and 2 used for transmitting data.

FDX

Link is Full Duplex.

HDX

Link is Half Duplex.

Rev

Data polarity is reversed.

Link Flow Control

Flow control is enabled. Link Flow Control is a pause in data transmission when there is system congestion.

Ping Test

Ping is a network utility that verifies communication between devices by sending and receiving ICMP packets.

DNS Local

Local DNS server translates URL's and website names to their IP address.

DNS Address

Name or IP address of the DNS server that you want to connect to. Example: dns4.local or 10.1.1.50

DHCP

Dynamic Host Configuration Protocol is a standardized networking protocol used on Internet Protocol (IP) networks for dynamically distributing network configuration parameters, such as IP addresses for interfaces and services. With DHCP computers, request IP addresses and networking parameters automatically from a DHCP server, reducing the need for a network administrator or a user from having to configure these settings manually.

LLDP

Link Layer Discovery Protocol is a vendor-neutral link layer protocol in the Internet Protocol Suite used by network devices for advertising their identity, capabilities, and neighbors on an IEEE 802 local area network, principally wired Ethernet.

CDP

Cisco switch Discovery Protocol is a proprietary Data Link Layer protocol developed by Cisco Systems. It is used to share information about other Cisco equipment that are directly connected, such as the operating system version and IP address.

Maintenance

Batteries

- The Net Prowler is powered by six AA alkaline batteries.
- To replace batteries, open the back cover by unscrewing the single screw with a philips head screwdriver.
- Take out the old batteries and replace. Slide the new batteries in by following the directional guidelines in the battery chamber.

- Screw the back cover back on to the Net Prowler. Do not over tighten the battery back cover.

Warning: Do not use carbon batteries. Do not mix new batteries with old batteries, due to the risk of battery leakage.

Cleaning

- Use a clean, damp cloth to clean the Net Prowler.
- Before cleaning, disconnect all cables from the Net Prowler. Failing to disconnect cables can damage the device and cause personal injury.
- Do not use harsh cleaners, abrasives, or solvents.

Storage

- When not in use, store the Net Prowler in a dry, protective case.
- Batteries should be removed if the device is stored for a long time.
- Do not expose the Net Prowler to high temperatures or humidity. See the specifications section for temperature limits.

Specifications

Measurement

Technology: Time Domain Reflectometry (TDR)

Cable Measurements: Split Pair Detection: 3 ft (1 m) to 1,000 ft (305 m) Length Measurement: 0 to 1,500 ft (457 m), ± (5%+1ft) Supports 8 continuity and ID number remotes (RJ-45) Supports 20 F-Connector ID only remotes

Power Over Ethernet: Tests for IEEE 802.3af and IEEE 802.3at (PoE Plus) compliant PoE Tests for mode and loads cable up to 25.5 watts (at mode 4) Identifies Mode A or B (pairs with PoE)

Active Ethernet: Indicates advertised speeds of 10/100/1000base-t half or full duplex

Can Link to network at 10/100base-t

Ping IPV4 DHCP

Ping IPV4 or IPV6 IP addresses

Device Discovery: Discover IPV4 Device Host Names and IP addresses

Maximum Voltage: Parameters refer to the maximum voltage that can be applied to any 2 connector pins without causing damage to the tester.

- RJ Jack: 66 VDC or 55 VAC

	• F-Connector: 50 VDC or VAC
Save Test Results:	Stores up to 256 Cable or Network tests with user defined names.
Tone Generation:	Tone Frequencies: 730 Hz and 1440 Hz
Languages:	English, French, Spanish, Italian, and German
Battery Life:	For 6 x AA, 9 VDC, 2,200 mA-hr (typical) alkaline battery: Operating – 20 hours typical
	Standby – 1.5 years typical (200uA max standby current) Batteries are included
Altitude:	10,000 ft (3048 m) operating
Temperature:	Operating: 32 to 122°F (0 to 50°C)
	Storage: -22 to +140°F (-30 to 60°C)
Humidity:	10 to 90% non-condensing
Enclosure:	High-strength PC/ABS plastic with V0 rating with boot Withstands 4 foot drop on to concrete
Size:	1.85”H x 3.6”W x 6.8”L (4.7 x 9.15 x 17.3 cm)
Weight:	With batteries: 1 lb 2 oz (510 g)
Safety Compliances:	CE
Warranty:	1 Year

Warranty Information

T3 Innovation guarantees that its products will be free of all defects in material and workmanship. This warranty extends for a period of 12 months for the T3 Innovation test equipment from the date of manufacture or proof-of-purchase.

All products deemed defective under this warranty will be repaired or replaced at T3 Innovation's discretion. No further warranties either implied or expressed will apply, nor will responsibility for operation of this device be assumed by T3 Innovation.

Product Registration

Registration of your purchased equipment and accessories allows you to access support information and receive notifications of product updates. To register products, please visit the T3 Innovation website at www.t3innovation.com/warranty/netprowler.

Disposal

WEEE Compliant: Prior to disposal of this product, please contact T3 Innovation for proper disposal options.